



TITLE:

RECORD OF CAPRELLA LAEVIS
(SCHURIN) (CRUSTACEA :
AMPHIPODA) FROM HOKKAIDO,
JAPAN

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CITATION:

Arimoto, Ishitaro. RECORD OF CAPRELLA LAEVIS (SCHURIN) (CRUSTACEA : AMPHIPODA)
FROM HOKKAIDO, JAPAN. PUBLICATIONS OF THE SETO MARINE BIOLOGICAL
LABORATORY 1976, 23(1-2): 51-56

ISSUE DATE:

1976-07-31

URL:

<http://hdl.handle.net/2433/175925>

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RECORD OF *CAPRELLA LAEVIS* (SCHURIN) (CRUSTACEA: AMPHIPODA) FROM HOKKAIDO, JAPAN

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With Text-figures 1-2

In 1973 and 74, the Wakkanai Branch of the Hokkaido Fisheries Experimental Station made the surveys of the bottom fauna in the neritic waters off Yamausu and Esashi, towns in the northern part of Hokkaido Island facing the Sea of Okhotsk. The materials collected in the summer months, especially from off Yamausu, contained many specimens of *Caprella laevis* (Schurin), among which were involved female specimens (Arimoto, 1976). This species has been described from Peter the Great Bay for the male only, but has not been reported from the Japanese waters. The present short paper is therefore to give the full description of both sexes of *C. laevis*, inclusive of individuals of their larval stage and juveniles.

Caprella laevis (Schurin, 1935)

(Japanese name: Sunachi-warekara)

(Figs. 1-2)

Haploarthron laeve Schurin, 1935, Zool. Anz., 112 (7/8): 203, figs. 3-4; ——— Schurin, 1937, Explor. Seas USSR, 23: 30-32, figs. 11-12.

Caprella laeve Utinomi, 1947, Seibutsu (Suppl.), 1: 74; ——— Vassilenko, 1967, Explor. Fauna Seas V (XIII): 223-225, fig. 20; ——— Arimoto, 1971, Bull. Biogeogr. Soc. Japan, 26 (3): 18.

Caprella laevis McCain, 1970, Crust. Catal. 2, Caprellidea, 1: 25; ——— Vassilenko, 1974, Determ. Fauna USSR, 107: 143, figs. 73-74.

Occurrences: A single male, off Esashi, 40 m deep, shell fragments, August 28, 1974, by Wakkanai Branch of Hokkaido Fish. Exp. Sta., Coll. No. 675; 378 males and 226 females as shown below, off Yamausu, by Wakkanai Branch of Hokkaido Fish. Exp. Sta., Coll. No. 674.

June 21, 1973.	Depth (m)	Bottom	Males	Females
	44		1	1
	45		2	—
	54		2	—

		55	—	1
		56	2	—
		57	1	—
August 7, 1973	Depth (m)	Bottom	Males	Females
	20	sand	1	—
	30	sand	2	2
	40	detritus	5	—
	50	detritus	2	2
	80	shell fragments	—	1
September 6, 1973	Depth (m)	Bottom	Males	Females
	40	detritus	2	—
	50	detritus	2	1
July 2, 1974	Depth (m)	Bottom	Males	Females
	30	shell fragments	1	—
	40	detritus	1	—
	50	detritus	238	113
	60	sand	107	98
	70	shell fragments	8	4
	80	sand	1	1
September 25, 1974	Depth (m)	Bottom	Males	Females
	40	detritus	—	2

DESCRIPTION

Adult male: Body 22 m long (Fig. 1, A, Coll. No. 647), smooth; pereonites II and V subequal in length and longer than the other pereonites; pereonites III and IV subequal in length, too, and only a little shorter than pereonites II and V; pereonite I a little shorter than pereonite III; combined length of pereonites VI and VII half as long as pereonite V.

Antenna 1 short, about one third as long as body; flagellum 9-segmented; segment 1 with spines at 4 points on the inner margin. Antenna 2 shorter than peduncle of antenna 1, with setae.

The terminal end of mandibular incisor (Fig. 2, M) divided into about 5 teeth, lacinia mobilis faintly toothed, molar large and prominent, setal row of 2 or 3 plumose setae. Outer lobe of maxilla 1 (Fig. 2, K) with a wing-like labium at the apical inner corner and 5 long distally bifurcate teeth on the distal margin; segment 1 of palp short, segment 2 longer than outer lobe, dentated with 6 strong bristles along the apex and furnished with a few spines. Outer and inner lobes of maxilla 2 (Fig. 2, J) with many rather long and strong spines on the inner margin. Inner lobe of maxilliped (Fig. 2, L) with 2 spinal teeth and several plumose spines on the distal margin; outer lobe longer than segment 1 of palp, with 5 teeth and several setae on the inner margin; segment 1 of palp short, segment 2 longer and with several long spines on the inner margin, segment 3 nearly as long as segment 2 and with long spines on the inner and apical margins, terminal segment sharp.

Gnathopod 2 (Fig. 1, A, B) small, rather in the posterior part of pereonite II; propodus nearly subequal to segment 1 in length, twice as long as the greatest breadth at the base of palm, a palmar spine on the proximal projection, poison

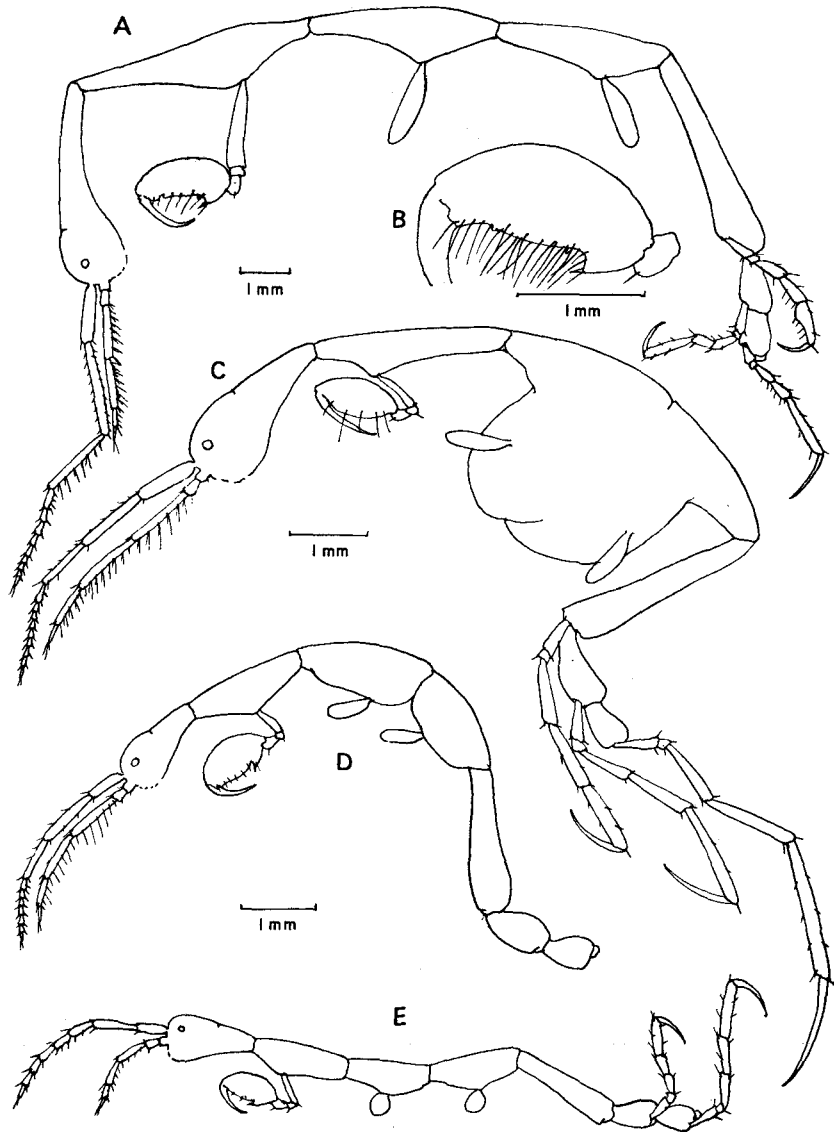


Fig. 1. *Caprella laevis* (Schurin). A, adult male; B, propodus of gnathopod 2 of old male; C, adult female; D, young female; E, young male.

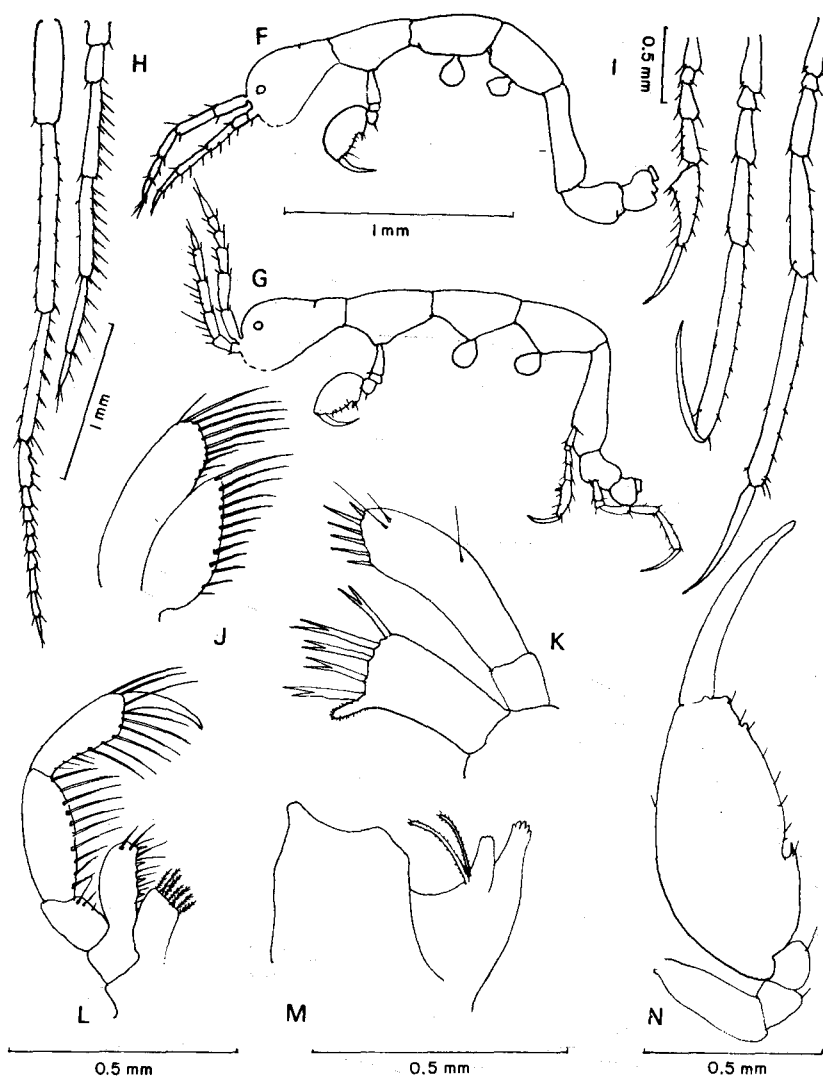


Fig. 2. *Caprella laevis* (Schurin). F, larval female; G, larval male; H, antennae 1 and 2 of adult female; I, pereopods 5, 6 and 7 of adult male; J, maxilla 2 of adult male; K, maxilla 1 of adult male; L, maxilliped of adult male; M, mandible of adult male; N, gnathopod 2 of young male.

tooth small, another triangular tooth at the distal angle of palm; palm densely hairy in old individuals.

Gills elongate, found on pereonites III and IV.

Pereopods (Fig. 2, I) long and thin; pereopod 5 shortest, propodus proximally with a slight palmar projection, without palmar spine; pereopod 7 longest, a little longer than pereonite V, propodus very long and thin, with several delicate spines on the outer and inner margins.

Young male: Body length 7 mm (Fig. 1, E); pereonite V longest; pereonites II, III and IV about subequal in length, pereonite I nearly as long as pereonite VI; antenna 1 short, with 5-segmented flagellum; antenna 2 roughly as long as antenna 1 and armed with several spines; gnathopod 2 attached slightly anterior to the middle of pereonite II, propodus with a few spines on palmar margin; gills oval.

Larval male: Body length 2.3 mm (Fig. 2, G); pereonite V longest; pereonites II, III and IV about subequal in length; antenna 1 short and as long as antenna 2, flagellum of the former 3-segmented; propodus of pereopod 5 proximally with a pair of small grasping spines.

Adult female: Body 13 mm long (Fig. 1, C, Coll. No. 674), smooth; pereonite V longest, pereonite I about half as long as pereonite V; pereonite II nearly equal to pereonite V in length; pereonites III and IV roughly subequal and a little shorter than pereonite II; combined length of pereonites VI and VII a little shorter than pereonite IV; pereonites III and IV forming big marsupium.

Antenna 1 short, a little shorter than one third of body length; antenna 2 a little longer than peduncle of antenna 1.

Gnathopod 2 small, attached in the anterior half of pereonite II, segment 1 about one fourth as long as pereonite II, propodus small, roughly oval and without proximal angle, the palmar margin fringed with several spines.

Gills elongate.

Pereopods 5-7 very long, longer than those in 22 mm long male (Fig. 1, A), almost similar to one another in shape, but decreasing in length anteriorly; pereopod 7 about half as long as body length, propodus longest, slender and without proximal projection, with several delicate spines on the outer and inner margins, dactylus long and sharp.

Young female: Body length 9.5 mm (Fig. 1, D); pereonite V longest, lengths of pereonites II, III and IV and combined length of pereonites VI and VII almost subequal; pereonites III and IV swollen ventrally more than in male (Fig. 1, E); flagellum of antenna 1 with 7 segments; gnathopod 2 attached to the middle of pereonite II; gills elongate; propodus of pereopod 5 proximally with palmar spines.

Larval female: Body length 2.5 mm (Fig. 2, F); pereonite V longest; lengths of pereonites II, III and IV and combined length of pereonites VI and VIII almost subequal; the ventral side of pereonites III and IV swollen more than in male (Fig. 1, G); flagellum of antenna 1 with 2 segments.

Distribution: Type locality — Peter the Great Bay, Sea of Japan. Other locality — Possjet Bay (Vassilenko, 1967).

Acknowledgement: I greatly appreciate the kindness of Mr. Tadahiko Hayashi, the chief of the Wakkanai Branch of the Hokkaido Fisheries Experimental Station, in offering me the above-mentioned very interesting specimens.

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